Ombitasvir-Paritaprevir-Ritonavir and Dasabuvir (Viekira Pak)

Table of Contents

- Ombitasvir-Paritaprevir-Ritonavir and Dasabuvir Viekira Pak Editor’s Summary
- Drug Summary
- Adverse Effects
- Resistance
- Key Drug Interactions

Drug Summary

The all-oral regimen ombitasvir-paritaprevir-ritonavir and dasabuvir, with or without ribavirin, provides another option for patients with chronic HCV genotype 1a infection (without cirrhosis or with compensated cirrhosis when given with ribavirin) and genotype 1b (without cirrhosis or with compensated cirrhosis). Overall, this combination regimen appears to be well tolerated, but severe hepatotoxicity associated with hepatic decompensation and death were reported post-marketing, mainly in patients with moderate-to-severe hepatic impairment (Child-Pugh B and C). The potential risk of severe liver complications in some patients underscores the importance of staging patients prior to treatment to identify any with moderate-to-severe hepatic impairment. This regimen is dosed twice daily and requires a higher pill burden than some other direct-acting antiviral options, particularly when ribavirin is included. Like elbasvir-grazoprevir, this combination has been shown to be safe and effective in patients with advanced kidney disease.

Adverse Effects

On October 22, 2015 the United States FDA issued a Drug Safety Warning that treatment with ombitasvir-paritaprevir-ritonavir and dasabuvir (Viekira Pak) can cause serious liver injury, mostly in patients with underlying advanced liver disease. In most of the reported cases, the liver injury occurred within 1 to 4 weeks of starting treatment. Available data from clinical trials have demonstrated excellent tolerance with the ombitasvir-paritaprevir-ritonavir and dasabuvir regimen. The most common (greater than 10%) adverse effects observed in clinical trials when used without ribavirin have been fatigue, nausea, pruritus, other skin reactions, insomnia, and asthenia. The concomitant use of ombitasvir-paritaprevir-ritonavir and dasabuvir with ethinyl estradiol-containing medications can result in significant elevations in hepatic aminotransferase levels; accordingly patients should discontinue any ethinyl estradiol-containing medications prior to starting ombitasvir-paritaprevir-ritonavir and dasabuvir. Ribavirin can cause significant adverse effects, including hemolytic anemia. Further, ribavirin is highly teratogenic and embryocidal, and extreme care must be given to avoid pregnancy during therapy and for 6 months after completing therapy; this pertains both to treatment of women receiving ribavirin treatment and women whose male partners are receiving ribavirin therapy. Consult the ribavirin prescribing information for detailed information on ribavirin-related adverse effects and precautions for use of ribavirin.
Resistance

In a pooled analysis of more than 2,000 subjects who were treated with ombitasvir, paritaprevir, ritonavir, and dasabuvir, with or without ribavirin in the phase 2b and 3 trials, 64 patients with genotype 1 infection who experienced virologic failure were evaluated for treatment-emergent resistance. Among those 64 patients, 20 had on-treatment virologic failure and 44 has post-treatment relapse. Treatment-emergent mutations were observed in all the three major drug targets (NS3, NS5a, and NS5B) in 30 (53%) of 57 patients with genotype 1a infection and in 1 (17%) of 6 patients genotype 1b. Among the 58 patients with genotype 1a, 88% developed a NS3 mutation, 78% NS5A mutation, and 67% an NS5B mutation. The efficacy of ombitasvir-paritaprevir-ritonavir plus dasabuvir is not known for patients with prior virologic failure and resistance with treatment that included another NS3/4A inhibitor, NS5A inhibitor, or NS5B inhibitor. In addition, for patients who develop virologic failure and resistance when treated with ombitasvir-paritaprevir-ritonavir plus dasabuvir, the impact on subsequent therapy with other NS3/4A, NS5A, or NS5B inhibitors remains unknown. The medication ritonavir, which is used as a pharmacologic booster, has activity against HIV protease; accordingly any patient with HIV coinfection should have full suppression of HIV RNA levels prior to and during receipt of ombitasvir-paritaprevir-ritonavir and dasabuvir.

Key Drug Interactions

For complete information on ombitasvir-paritaprevir-ritonavir and dasabuvir-related drug interactions, see the Drug Interactions section in the Ombitasvir-Paritaprevir-Ritonavir and Dasabuvir (Viekira Pak) Prescribing Information.